



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,012	07/05/2006	Romain Desplats	0512-1332	7037
466	7590	08/08/2007	EXAMINER	
YOUNG & THOMPSON			PATIDAR, JAY M	
745 SOUTH 23RD STREET			ART UNIT	
2ND FLOOR			PAPER NUMBER	
ARLINGTON, VA 22202			2862	
			MAIL DATE	DELIVERY MODE
			08/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/575,012	<b>Applicant(s)</b> DESPLATS ET AL.	
	<b>Examiner</b> Jay M. Patidar	<b>Art Unit</b> 2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/7/06</u> . | 6) <input type="checkbox"/> Other: ____.  |

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
3. The abstract of the disclosure is objected to because the abstract does not set forth the nature and gist of the invention.

Correction is required. See MPEP § 608.01(b).

4. Claims 1-6,8-12 are objected to because of the following informalities:

In claim 1, at line 2, "at least one MR" is claimed while at line 5 "two MRs" are being claimed; the phrase "selected measurement axes are angularly offset" is not clearly defined and understood; it is unclear from the language of the claim as to how they are angularly offset;

In claim 2, there is no antecedent basis for "same semi-conductor substrate" at line 4;

In claims 2-5,11, it is also unclear as to whether the sensors at line 2 or 3 are the same as the ones claimed in claim 1 or are different sensors;

In claim 3, the phrase “axes are perpendicular in pairs” is vague;

In claim 4, the phrases “sensors of each same pair” and “sensors of two separate pairs” are vague since it is not clear as to what is meant by “same pair” or “separate pair”; the structure or scope of the claim is unclear from the language of the claim;

In claim 5, the phrases “same triplet” are “separate triplets” are vague; the structure as claimed is not clearly understood;

In claim 6, it is unclear as to what is meant by “in accordance with two layers”; it is unclear as to what the layers are and how they are structurally cooperate with other elements of the device;

In claims 8,12, the phrase “sensors of the same layer” is vague since it there are only two sensors (as claimed in claim 1), are these both sensors on the same layer?

In claim 9, there is no antecedent basis for “same layer”;

In claim 10, there is no antecedent basis for “various processing chains”; the phrase “processing chain” is unclear; it is not understood as to what the processing chain is and its function;

In claim 11, “perpendicular in pairs” is vague.

Appropriate correction is required.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 (insofar as understood) are rejected under 35 U.S.C. 102(b) as being anticipated by Acker (6,427,314).

As to claims 1,6-9,12, Acker discloses a device measuring magnetic field including a plurality of magnetoresistive sensors wherein the measurement axes e.g. 250,262 are angularly offset (Fig. 9; col. 23, lines 33-49).

As to claims 2,11, the magnetoresistive sensors are mounted on the same substrate e.g. 254 (fig. 9).

As to claim 3, Acker discloses three magnetoresistive sensors being perpendicular to each other (fig. 9).

As to claims 4-5, the magnetoresistive sensors have their axes parallel and offset relative to each other (fig. 9, sensors on the side panel).

As to claim 10, Acker discloses processing chain 256 for processing the signals from the magnetoresistive sensor elements (fig. 9).

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay M. Patidar whose telephone number is 571-272-2265. The examiner can normally be reached on M-Thur 7:00-5:30.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/575,012  
Art Unit: 2862

Page 6

/Jay M. Patidar/  
Jay M. Patidar  
Primary Examiner  
Art Unit 2862  
Email: [Jay.Patidar@USPTO.gov](mailto:Jay.Patidar@USPTO.gov)

August 1, 2007